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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,558	08/27/2001	Junbiao Zhang	A7993	1596

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EXAMINER
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EL HADY, NABIL M

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/938,558

Applicant(s)

ZHANG ET AL.

Examiner

Nabil M. El-Hady

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/20/02</u> | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 1-38 are pending in this application.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
3. Claims 1-38 rejected under 35 U.S.C. 102(b) as being anticipated by Ott et al. (Looking Inside an Active Network: The ANMOS Monitoring Tool), hereinafter "Ott".
4. Ott is cited by the applicant in IDS filed 11/20/2002.
5. As to claim 1, Ott discloses the invention as claimed including a system for monitoring a network, comprising a graphical interface layer that displays a logical view of said system and handles user interactions; a logical network layer that logically represents said network and integrates a customizable application module via a generic platform; and a network adaptor layer that generates management messages for said network and translates messages from said network for said logical network layer, wherein said logical network layer is positioned between said network adaptor layer and said graphical interface layer (sections 5.1-5.4, and Fig. 5).
6. As to claim 2, Ott discloses said network comprises one of an active network that includes programmable packets invoking service functions at network nodes, and a traditional network (Introduction, section 2.1, and section 5).

7. As to claim 3, Ott discloses said logical network layer comprises a plurality of logical representations of entities of said network; and a logical network controller that controls said logical network layer (section 5.3, and Fig. 5).

8. As to claim 4, Ott discloses each of said logical representations comprises one of the following logical components: a node that represent a network node; a port that represents a network interface of said node; a link that represents one of a physical link and a virtual link among at least two network ports; and a logical packet that represents a data packet (section 5.3).

9.

10. As to claim 5, Ott discloses each of said logical representations comprises a handle to a corresponding graphical component in said graphical interface layer, a handle to said logical network controller; a flag indicative of a status of one of said logical components, at least one gauge parameter that records statistics related to a particular said one of said logical components; and an event handler that processes an event and a message received from said logical network controller (inherent in sections 5.1-5.5).

11. As to claim 6, Ott discloses said port includes a handle to said node, and said link includes a plurality of handles to corresponding ports connected by said link (inherent in sections 5.1-5.5).

12. As to claim 7, Ott discloses said logical components are interconnected by event registration and dispatching performed by said logical network controller to specify

interdependencies between said logical components (section 5.3).

13. As to claim 8, Ott discloses said logical packet represents data exchanged between at least two network nodes such that a trace of said logical packet is independent of at least two nodes, and said at least two nodes do not maintain transient states for said logical packet (last paragraph of section 3, and last paragraph in section 5.4).

14. As to claim 9, Ott discloses all messages for said data packet are directed to said logical packet, and said logical packet performs an updating operation and displays a traversing path by controlling particular graphical components (last paragraph of section 3, and last paragraph in section 5.4).

15. As to claim 10, Ott discloses said logical network controller comprises an event registering and dispatch engine for a message, said engine comprising a message table configured to map a message to a corresponding application message handler (section 5.5, and Fig. 6).

16. As to claim 11, Ott discloses said message table comprises a message name, an originator of said message and a name of an application, wherein said originator of said message can be a symbol that represents a plurality of originators (section 5.3).

17. As to claim 12, Ott discloses an application message handler that extends and customizes said logical representations, and registers messages to be handled with said logical network controller (section 5.3).

18. As to claim 13, Ott discloses at least one of said logical components and said application message handler register said messages to be handled with said logical network controller, such that said logical network controller controls an arriving message from said network adaptor layer via said message table (section 5.2, and Fig. 6).

19. As to claim 14, Ott discloses said logical network controller further comprises a default message handler that handles a message that has not been registered with said logical network controller by an application message handler; and an interface with said network adapter layer that encapsulates and transmits events from said graphical interface layer to said network adapter layer, and analyzes and dispatches messages from said network adaptor layer to said logical components (section 5.1-5.4, and Fig. 5)

20. As to claim 15, Ott discloses said graphical interface layer comprises a graphical layer controller that manages said graphical interface layer and a plurality of graphical components (last paragraph of section 5.4, and Fig. 5).

21. As to claim 16, Ott discloses said graphical layer controller performs initialization to initiate parsing and display of data, presents a look and a feel of graphical components, and manages user interface events (inherent in section 5.4).

22. As to claim 17, Ott discloses all of said graphical components have corresponding logical components in said logical network layer, and an appearance of corresponding ones of

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said graphical components are updated in accordance with a status of said logical components in said logical network layer (inherent in section 5.1).

23. As to claim 18, Ott discloses said graphical interface layer can be customized to build a graphical user interface based on an XML document (3<sup>rd</sup> paragraph in Introduction).

24. As to claim 19, Ott discloses said network adaptor layer comprises a network adaptor coupled between said logical network layer and an active network (section 5.1 and section 5.2).

25. As to claim 20, Ott discloses said network adaptor analyzes a packet received from said network and translates said packet into a message that can be understood by said logical network layer in a first direction, and converts a request from said logical network layer and transmits said request to a target in said network in a second direction (section 5.2, and Fig. 6).

26. As to claim 21, Ott discloses said network adaptor performs monitoring functions requested by said logical network layer by selecting a particular active program, said monitoring functions can be customized by programming active packets sent from said network adaptor, and a required format is coded directly into said active packets to be sent to said network (section 5.2 and section 5.5).

27. As to claim 22, Ott discloses said network adaptor layer comprises a network adaptor that supports an SNMP management interface that monitors a traditional network (inherent in section 4).

28. As to claim 23, Ott discloses an application message handler that creates application-specific components, wherein said application-specific components correspond to application-specific network components (section 5.2).

29. As to claim 24, Ott discloses said application-specific components are created in accordance with an XML file specified by an application (3<sup>rd</sup> paragraph in Introduction).

30. As to claim 25, Ott discloses said management messages comprise one of an active message for an active network and a SNMP message for a traditional network (section 4.2).

31. As to claim 26, Ott discloses said message comprises a name of said message, a name of an application to which said message is associated, an originator of said message, and data based on a type of said message (inherent in section 2.1).

32. As to claim 27, the claim is rejected for the same reasons as claim 1 above. In addition, Ott discloses a method of monitoring a network, comprising receiving a message from the network; handling said message through a logical network layer; notifying a graphical interface layer of said handling of said message, and performing a graphical operation in said graphical interface layer in accordance with said notifying step (sections 5.2, 5.3, and Fig. 5).

33. As to claim 28, Ott discloses said handling step comprises comparing information from said message with data in a message table indicative of a capability of an application message



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handler to handle said message; processing said message based on said comparing step, in one of said application message handler and a logical network controller; and discarding said message if said message cannot be processed in said processing step (inherent in Fig. 6 and section 5.2).

34. As to claim 29, Ott discloses said handling step comprising creating and registering a new logical component (sections 5.2 and 5.3).

35. As to claim 30, Ott discloses said creating and registering step comprising dispatching a message from a logical network controller to an application message handler, said application message handler creating a new logical component; and registering said new logical component in a list of existing logical components in said logical network controller (section 5.3).

36. As to claim 31, Ott discloses said creating and registering step comprising creating a new logical component in said logical network layer, wherein said logical network controller performs said creating step; and registering said new logical component in a list of existing logical components in said logical network controller (section 5.3).

37. As to claim 32, Ott discloses translating said message from said network in a network adaptor into a format that is understood by said logical network layer; and transmitting said understood message to a logical network controller in said logical network layer (section 5.5).

38. As to claim 33, Ott discloses generating an output in said graphical interface layer in accordance with said understood message in said logical network controller, wherein said

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output is generated in accordance with instructions from said logical network controller (section 5.5).

39. As to claim 34, Ott discloses an initialization file describes components of a user interface, event models and application modules so as to perform customization of a monitoring tool of said network (section 5.5).

40. As to claim 35, the claim is rejected for the same reasons as claims 1 and 27 above. In addition, Ott discloses a method of monitoring a network, comprising generating a request in a graphical interface layer; determining whether an operation to satisfy said request can be performed at said graphical interface layer; and performing said operation in one of (i) only said graphical interface layer, and (ii) said graphical interface layer and a plurality of underlying layers, based on a result of said determining step (Fig. 5; and sections 5-1-5.5).

41. As to claim 36, Ott discloses said performing step comprising said graphical interface layer transmitting said request to a logical network controller; said logical network controller converting said request into a message and transmitting said message to a network adaptor; said network adaptor translating said message into a format readable by said network and transmitting said translated message to said network; and said network adaptor receiving information from said network in accordance with said request (section 5.2 and Fig. 5).

42. As to claim 37, Ott discloses a graphical component in said graphical interface layer notifying a corresponding logical component in a logical network layer of said request and transmitting said request to said logical network controller (inherent in Fig. 5).


43. As to claim 38, Ott discloses said request is generated in accordance with a user action performed at a user interface of said graphical interface layer (section 5.4).

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M. El-Hady whose telephone number is (571) 272-3963. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 27, 2005

  
Nabil El-Hady, Ph.D., M.B.A.  
Primary Patent Examiner  
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